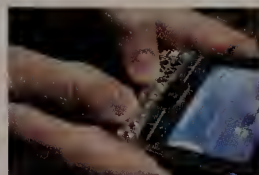


**WAN critical to virtualization's payoff**  
But unique challenges arise in optimizing bandwidth for virtual applications. **Page 20.**



**All thumbs, no feat**  
A 12-year-old's one-month tally of 22,795 text messages is nothing for the media — or her parents — to celebrate. 'Net Buzz, **Page 34.**

# NETWORKWORLD

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February 16, 2009 ■ Volume 26, Number 7

## Feds miss DNSSEC deadline

The federal government failed to meet its first deadline for deploying DNS security mechanisms on its .gov top-level domain. **Page 12.**

## IBM, Juniper form a cloud

IBM and Juniper offer up technology that lets enterprise IT managers easily reallocate computing resources between a private and a public cloud. **Page 14.**

## Mobile World Congress preview

Contracting economy forces new cellular priorities. **Page 16.**

## Force10 unfurls virtualization plan

Force10 Networks last week unveiled a blueprint for simplifying the management of virtualized data centers. **Page 17.**

## Could U.S. emulate overseas 'Net rules?

BY BRAD REED

As the Obama administration begins to enact tech policy, two of its biggest challenges will be deciding how to deploy national broadband services and whether to impose strict net neutrality rules on American carriers.

If the administration decides to look abroad for answers, it will see that countries such as Japan, South Korea and France have developed faster and less expensive broadband networks, but have also refrained from implementing strict net neutrality rules.

One reason, some analysts say, is these countries have retained the bandwidth-sharing rules for carriers the United States discarded in 2005.

Under the old common carrier rules in the United States, incumbent telecom companies were required to let ISPs such as EarthLink buy bandwidth on their DSL networks at discount prices. The idea was to have incumbents wholesale access to their networks to other ISPs that would compete with each other to sell Internet services to consumers

**See Net neutrality, page 18**

## Down economy fuels IT outsourcing deals

BY DENISE DUBIE

Companies flocked to IT outsourcing vendors as the recession unfolded last year and industry watchers expect more of the same as companies seek to slash fixed costs and deliver services with smaller staffs.

However, even as deals are made, look for them to be of smaller size and duration. Global sourcing advisory firm TPI reports that megadeals, those valued at more than \$1 billion, peppered the first half of 2008 but tapered off into the second half as economic conditions worsened. The number of deals worth less than \$1 billion increased by 12%, TPI says.

Such deals show that buyers are trying to address specific pain points.

For instance, Gartner noted customers in 2008 displayed growing focus on green IT as it related to infrastructure outsourcing and "the carbon footprint of data centers." Yet while green IT is growing in popularity, the focus remains on cost, power optimization and service resilience, more so than environmental motivations. Other infrastructure services such as remote monitoring are also gaining buyer interest as companies look to reduce costs via lower labor rates and reduce manual efforts.

"The challenging economic environment  
**See Outsourcing, page 30**

## TREND WATCH

Social Networks

# Tweet to compete

Smart social networking has become essential for most IT execs  
**PAGE 25**







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■ **The PowerDock 4 lets you recharge multiple iPhones/iPods without any cable clutter. See Cool Tools, page 24.**

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# GOODBADUGLY

## Adding zip to wireless

A professor at the University of California San Diego has invented a frequency amplifier that could be used to help deliver wireless data at 10Gbps over the span of a kilometer. James Buckwalter unveiled his silicon-based amplifier that will transmit data through millimeter wave frequencies in the 60-120GHz bands. Using these high-frequency bands will allow for vastly faster data transfers than today's Wi-Fi and WiMAX technologies, which both typically operate on the 2.5GHz band.

## FAA gets hacked

The Federal Aviation Administration has joined the growing list of government agencies that have had their supposedly safe systems hacked. The agency last week notified about 45,000 employees that one of its servers was hacked into and employee personal identity information was stolen. The



FAA was quick to say the server that was accessed was not connected to the operation of the air traffic control system or any other FAA operational system. It did say two of the 48 files on the breached computer server contained personal information about more than 45,000 FAA employees and retirees who were on the FAA's pay rolls as of the first week of February 2006.

## Phelps dives on IBM

Michael Phelps bailed on a scheduled speaking appearance at the IBM Pulse conference in Las Vegas last week in the aftermath of the Olympic gold medal-winning swimmer's bong photo episode. But basketball star Magic Johnson took his place and wowed the crowd.



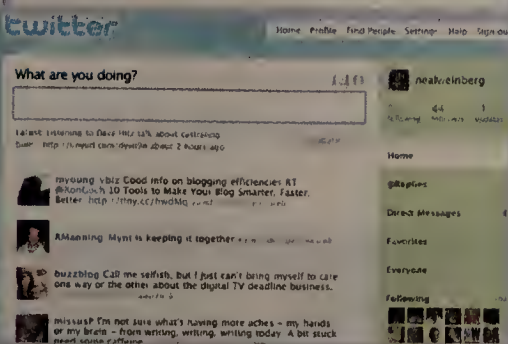
# TREND WATCH

Social Networks



# Tweet to compete

Smart social networking has become essential for most IT execs.  
PAGE 25





## Windows not ready until SP1

Re: Windows Vista, The Windows Me of our Generation ([www.nwdocfinder.com/8729](http://www.nwdocfinder.com/8729)):

From past experience, we will wait until Win7 has SP1 available and in use before we consider upgrading. Microsoft has a history of much promise on initial releases only to find bugs aplenty that need a SP1 to settle down. I would hope things would be different this time; we will wait until we see how stable it is before considering the upgrade question.

*Mike D*

## Happy not to use AT&T

Re: Court agrees that Verizon marketing tactics are illegal ([www.nwdocfinder.com/8730](http://www.nwdocfinder.com/8730)):

I'm truly surprised to read this. My last encounter with Verizon "customer service" (six people, 50 minutes) to add a feature to my wife's account made me think they were trying to chase people away. I'm really happy Verizon didn't get the iPhone deal, so I could be forced to switch to AT&T.

*mwkingsandiego*

## When scripts become miserable little miscreants

Re: Here is a good question: Is scripting programming or just systems administration? ([www.nwdocfinder.com/8731](http://www.nwdocfinder.com/8731)):

I started out over three decades ago as a budding programmer, and actually wrote a half-dozen custom business apps for customers who used Radio Shack TRS-80 model III and Model 4 (and 4p) PCs, using TRS-80 BASIC. But discovering that I am slightly affected with what might be considered ADD, I found that endless hours of coding and debugging drove me absolutely nuts. So, I changed my career focus toward PC hardware and then finally to network operations. Fortuitously, I might add, given the demise of the venerable Radio Shack PCs, and my need for continued sanity.

It's amazing what a crafty coder can do with three or less lines of BASIC code, a frugality necessity when you have a whopping 32k of total system RAM to use for all your code and the data being manipulated. So, as far as coding is concerned, size definitely matters, for efficiency sake, but tiny does not disqualify.

Modern worms and viruses have even felt the swell of code bloating, not being the sole domain of operating systems and office productivity suites. But in the early days, those miserable little miscreants were quite compact and efficient, in their malicious way. Some were nothing more than packaged scripts. And certainly nobody would dispute that a virus or worm is a program or involved code or coding.

I feel a better definition for programming would state that 'programming is establishing specific sequential instructions to be executed for performing an automated task on targeted processing equipment'. That encompasses pretty much everything that could be imagined as programming or coding, and would by definition include scripting.

*Anonymous*

## Control yourself down Google's slippery slope

Re: Where to draw the line on Google ([www.nwdocfinder.com/8732](http://www.nwdocfinder.com/8732)):

Voyeurism is dead. What's the real story behind all of this is the fact that people are willing to give up their own privacy because they want someone to be able to know where they are all the time. It's not just Google who encourages this. Facebook, Twitter and MySpace have all been building this sense that nothing is personal. We'll take pictures of ourselves and post them to the Internet. Even Michael Phelps has fallen 'victim' to this. Should we remove GPS/video/camera from all cell phones to curb this, or do we embrace this technology with a hope that we can police its use and abuse. If the NSA/CIA or any other government body wanted to distribute this, I think there would be a lot of people asking questions. The government has and always will tell you one thing while they do another in the name of '\_\_\_\_'. To answer your question, you're paranoid and Google has us walking toward a slippery slope. The good news is we're still in control.

*Nic*

*E-mail letters to [jdix@nww.com](mailto:jdix@nww.com) or send them to John Dix, editor in chief, Network World, 492 Old Connecticut Path, Framingham, MA 01701-9002. Please include phone number and address for verification.*

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Securing Your Web World



## BLOGOSPHERE

■ **Apple suffers rare loss in court in its battle against Psystar.** Yoni Heisler writes in the iOnApple blog, "A court granted Psystar's motion to amend its counterclaims to include allegations that Apple has been misusing its copyright by refusing to allow competitors from selling OS X on non-Apple hardware. ... Psystar and Apple have been challenging and re-challenging each others motions and legal positions for months, but it appears that this legal merry-go-round is coming to an end. A judge ruled that Psystar would be granted permission to amend its complaint to include allegations of copyright misuse. The court noted that even though Apple's point of view may be proven to be correct at trial, there was not enough evidence to preclude Psystar from raising the issue."

[www.nwdocfinder.com/8735](http://www.nwdocfinder.com/8735)

■ **AXP tips and tricks.** Jimmy Ray Purser writes in his Networking Geek to Geek blog "Every once and while, something cool happens. At Cisco, for me that event was the AXP module. I know it sounds kinda cheesy but the AXP is something I have been waiting on for a long time. The ability to interact directly with a router via a native API and not just the router but the modular code constructs inside the IOS itself. I played around with the CUAЕ for a while, writing my own applications for voice stuff. I also wrote a bunch of TCL scripts for EEM apps on the Catalyst line. It was a real hoot but still I wanted to write code that could mine info from all areas of the router. Then I was introduced to the AXP."

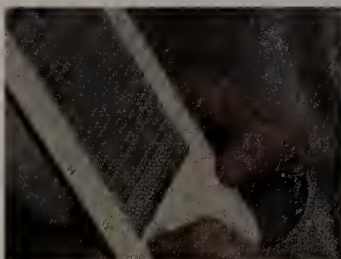
[www.nwdocfinder.com/8736](http://www.nwdocfinder.com/8736)

■ **Google on a power trip called PowerMeter.** John Brandon writes in his Enterprise Google blog, "Google PowerMeter is a new project to help average consumers understand electrical usage in their home. Google said there is just a handful (about 50) of Google employees using PowerMeter in a closed beta. They will roll out the plan to another 200 employees, and open the beta after that. The project hinges on the fact that there are 40 million 'smart meters' in the world that even allow software such as PowerMeter to tap into your own personal power usage. According to *Information Week*, another 100 million are planned — over 40 million as part of President Obama's recovery plan. What I find interesting is that after shutting down projects such as the Google Notebook and Dodgeball, Google is not just sitting around counting up their cash from a dominant ad network." [www.nwdocfinder.com/8738](http://www.nwdocfinder.com/8738)

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### Kindle 2 up close

Amazon unveiled an updated version of its wireless e-reader that boasts a new design, updated display and more storage, among other features.

[www.nwdocfinder.com/8725](http://www.nwdocfinder.com/8725)

IDG NEWS WIRE:



### IBM, Juniper's cloud strategy

New IBM management software can give IT managers a clearer view into both private clouds within an enterprise and public ones that are available by subscription.

[www.nwdocfinder.com/8726](http://www.nwdocfinder.com/8726)

IDG NEWS WIRE:



### Guitar merges acoustics, electronics

Much of the sound from an acoustic instrument is due to its wood grain patterns, but a new prototype guitar built by an MIT student combines the natural acoustics of wood with the power of electronic processing.

[www.nwdocfinder.com/8727](http://www.nwdocfinder.com/8727)

## BEST OF NWW'S NEWSLETTERS

# Steps you can take now to help reduce data breaches

**Tech exec:** I talked to Michael Argast, a security analyst with Sophos, to get his tips on what a network manager can do to help prevent data breaches. Data protection is everyone's responsibility, but a company's IT workers have a deeper responsibility because there are so many tools and techniques at your disposal. With a little diligence, you can bolster your network security to help prevent the loss or compromise of sensitive data. Data encryption is an obvious tool that can safeguard sensitive data. Argast cautions, however, that encryption isn't just for USB keys and portable devices; it also should be used for the entire transmission path of the data. He cites the recent Heartland data breach, where the data was encrypted at most points. However, there was one point in moving the data around where it wasn't encrypted, and the intruder exploited this vulnerability. Argast recommends you pay close attention to encryption standards and how they are deployed on infrastructure devices. "Encryption standards can be cracked," says Argast. "Look at WEP. When it was cracked, many devices could be upgraded to WPA version 1, which

gave extra life to devices and lowered the cost of infrastructure replacement." He advises that you make sure your infrastructure devices are programmable so you can upgrade them as standards are broken. [www.nwdocfinder.com/8721](http://www.nwdocfinder.com/8721)

**Wireless:** I was distressed to discover some of my buddies on Facebook recently exchanging banter that implied WiMAX was all washed up. Technology arguments aside, my first thought was: "Get a life! Facebook isn't for talking shop!" But then I quickly turned into a butt-inski and joined the conversation. Indeed, WiMAX has plenty of competition, but, then, so do all emerging broadband mobile WAN technologies kicking around. And WiMAX is actually fairly well deployed in other countries around the world, unlike its primary, still-on-paper competition, Long-Term Evolution (LTE). I do hate to get hung up on semantics. But note that neither LTE nor mobile WiMAX are technically 4G technologies. 4G is a term that has been carelessly thrown around to indicate something "faster than the last wireless network." [www.nwdocfinder.com/8722](http://www.nwdocfinder.com/8722)



# Microsoft announces Conficker worm bounty

**T**he spreading Conficker/Downadup worm is now viewed as such a significant threat that it has inspired the formation of a posse to stop it, with Microsoft leading the charge by offering a \$250,000 reward to bring the Conficker malware bad guys to justice. The money will be paid for "information that results in the arrest and conviction of those responsible for illegally launching the Conficker malicious code on the Internet," Microsoft said, adding that it's forming a partnership with Internet registries and DNS providers such as ICANN, ORG and NeuStar as well as security vendors Symantec and Arbor Networks, among others, to stop the Conficker worm. "By combining our expertise with the broader community, we can expand the boundaries of defense to better protect people worldwide," said George Stathakopoulos, general manager of Microsoft's Trustworthy Computing Group. Conficker, also called Downadup, is estimated to have infected at least 10 million PCs. Its main trick is to disable antimalware protection and block access to antimalware vendors Web sites. [www.nwdocfinder.com/8739](http://www.nwdocfinder.com/8739)

**HP unveils blade PCs.** HP is unveiling the fourth generation of its blade PC line and bundling the devices with Citrix XenDesktop 3 virtualization software. The HP BladeSystem bc2800 and bc2200, due out in March, sit inside the data center letting users connect to them from any location and device, whether it be a thin client, laptop or desktop. Unlike a virtual desktop infrastructure model in which multiple virtual machines are contained on a single server, each blade PC can only serve one user at a time. But 280 of them can fit into a single rack, and client virtualization software helps deliver benefits related to security, availability, management and flexibility, according to HP. The HP bc2200 uses a single-core AMD Athlon 64 processor, while the bc2800 is based on a dual-core AMD Turion processor.

[www.nwdocfinder.com/8740](http://www.nwdocfinder.com/8740)

**IBM, EMC push encryption key standard.** A group of industry vendors, led by IBM, HP and EMC, is proposing a new standard to make their encryption management software work together. Called the Key Management Interoperability Protocol, the standard is being proposed through OASIS, the consortium best known for its development of Web services standards. Backers see KMIP as one way to replace the hodgepodge of different encryption-key management products available. Today, IT staff must use different key management systems to control who gets access to different parts of the network. One system might be used for e-mail encryption, a second for storage and a third for the database. "It will work for just about any type of device you can imagine," said Mark Schiller, a director with HP's Security Office. [www.nwdocfinder.com/8741](http://www.nwdocfinder.com/8741)

**LG, Samsung develop solar-powered cell phones.** LG and Samsung are due to unveil cell phones that you definitely won't want to keep in your pocket. They have developed prototype handsets that are recharged by solar panels built into the case. Samsung's



phone is called Blue Earth and is a touch-screen model with rounded corners. The phone is made from recycled plastic and doesn't include harmful substances such as brominated flame retardants, Beryllium and phthalates. LG didn't release much information about its prototype phone,

which appears to be a version of its KF750 Secret handset with — like the Samsung phone — solar cells covering the rear of the phone's case. [www.nwdocfinder.com/8742](http://www.nwdocfinder.com/8742)

**Palm pulls the plug on Palm OS.** Palm has pulled the plug on its Palm OS operating system. Instead, the company will bet its future on its newly unveiled but still mysterious Palm webOS, built to power the new Pre smartphone. The current Centro smartphone will be the last to use the Palm OS, according to company CEO Ed Colligan, who spoke last week at an investor conference in San Francisco. "We will transition to webOS as our core OS, in addition to supporting Microsoft Windows products in the enterprise segment of the market," Colligan said. Palm has revealed very few details about webOS, but it is said to support HTML5, enabling a local data store so applications and data are avail-

able offline, and a file system. Tucked within is a Linux framework, according to one developer. [www.nwdocfinder.com/8743](http://www.nwdocfinder.com/8743)

**Start-up building bare-metal desktop hypervisor.** A start-up called Neocleus is preparing to ship a bare-metal desktop hypervisor that it says will improve endpoint security and let IT shops manage how virtual desktops interact with each other. The desktop virtualization market is dominated by hypervisors that run as an application on top of the operating system. But vendors say bare-metal hypervisors will be more secure than today's model because they are independent of the client operating system, and will run faster because they let applications run on the local client rather than a remote server. Neocleus, which was founded in 2006 and emerged from stealth mode nine months ago, is "really the first to make a stance and put a bare-metal hypervisor on the device," says Forrester analyst Natalie Lambert. Citrix and Intel also are working on a bare-metal hypervisor for client PCs, and VMware plans to release one of its own in the second half of this year. [www.nwdocfinder.com/8744](http://www.nwdocfinder.com/8744)

**U.S. SEC sets deadline for electronic filing.** The U.S. Securities and Exchange Commission has finalized a set of deadlines by which companies must file financial data in Extensible Business Reporting Language, a data-markup language increasingly used in the United States and Europe. The largest 500 companies must send their second-quarter 2009 reports in XBRL, effective April 13. By June 2010, 1,800 accelerated filers must do the same, with 12,000 other public companies required to use the format by June 2011. XBRL is a system of tags used to identify certain types of data that can be interpreted uniformly by different software programs, offering a standardized way to handle complex data. The SEC said the move to XBRL will create more transparency in reporting financial data.

[www.nwdocfinder.com/8445](http://www.nwdocfinder.com/8445)

**Microsoft posts 10,000th patent.** Microsoft last week said it recorded its 10,000th U.S. patent, which is related to its Surface computing platform. U.S. Patent No. 7,479,950 covers a technology that lets users place objects on a surface and have them associated with data or media stored on the computer's hard drive. A user could place a set of car keys on the surface and the computer could bring up that person's schedule or list of favorite TV shows airing that night. Microsoft is ranked fourth among companies with the most U.S. patents. In 2008 Microsoft rival IBM was granted 4,186 patents, a record for a single year, to Microsoft's 2,030. Microsoft says it spends roughly \$8 billion a year on R&D. [www.nwdocfinder.com/8746](http://www.nwdocfinder.com/8746)



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# Federal govt. misses DNS security deadline

## One month delay for signing .gov caused by software glitch

BY CAROLYN DUFFY MARSAN

The federal government missed its first deadline for rolling out DNS security mechanisms on its .gov top-level domain.

Federal officials now say they will cryptographically sign .gov by the end of February, one month behind their original schedule.

Federal agencies were required to deploy DNS Security Extensions (DNSSEC) on the .gov top-level domain by January 2009 and on all sub-domains by December 2009 under an Office of Management and Budget (OMB) mandate issued last year.

DNSSEC prevents hackers from hijacking Web traffic and redirecting it to bogus sites. The Internet standard prevents spoofing attacks by allowing Web sites to verify their domain names and corresponding IP addresses using digital signatures and public-key encryption.

DNSSEC is the only foolproof way to prevent cache poisoning attacks, where a hacker redirects traffic from a legitimate Web site to a fake one without the user knowing. These attacks are a result of a significant DNS flaw known as the Kaminsky Bug, which was discovered last summer.

The U.S. General Services Administration (GSA) said last week that it will deploy DNSSEC on .gov by the end of February.

"Careful and precise acceptance testing on this software was performed and reviewed by a team from OMB, GSA, [National Institutes of Standards and Technology] and [Department of Homeland Security]," the statement said. "During these reviews, it was determined by the team that this software would benefit from a change to improve functionality, which has caused a one-month delay in the implementation schedule."

The U.S. federal government's delay may be a sign that DNSSEC is harder to deploy than previously thought.

"DNSSEC isn't as easy as most people think," says Rodney Joffe, senior vice president for NeuStar's UltraDNS division, which offers managed DNSSEC services for top-level domain operators. "It's not as simple as signing the zone. There are provisioning issues, there are key roll-over issues, and there are a number of administration processes that have to be in place before you can roll-out DNSSEC."

Joffe says the federal government's DNSSEC delay isn't a surprise. "Nonetheless, it's quite im-

pressive how far they've come. The delay is not that significant," he added.

In the decade since the Internet standards was created, DNSSEC has been deployed by only a handful of countries, including Sweden, Puerto Rico, Bulgaria, Brazil and the Czech Republic.

DNSSEC expert Olaf Kolkman, CEO of NLnet Labs and chair of the Internet Architecture Board, says he doesn't think the delay in signing .gov is significant.

"The train is on steam," Kolkman says of the U.S. government's DNSSEC deployment plan.

In other DNSSEC news, NIST has purchased software from Secure64 called DNS Signer for use in its DNSSEC testing lab.

"This is an important deal obviously because NIST is a pretty important client within the federal government space," says Mark Beckett, vice president of marketing for Secure64. "We are

**"DNSSEC isn't as easy as most people think. It's not as simple as signing the zone."**

**Rodney Joffe**

Senior vice president, NeuStar

talking to and engaged with many agencies because the mandate is for them to deploy DNSSEC by the end of 2009. Many agencies are looking at our software, but NIST is the first actual customers within that space."

Scott Rose, a computer scientist with NIST's Information Technology Laboratory, says DNS Signer was one of several DNSSEC products that NIST has purchased for its testbed.

"NIST has obtained several products for use with the Secure Naming Infrastructure Pilot," Rose says. "The goal of SNIP is to provide a testbed for various network solutions and to assist U.S. federal agency DNS operators [to] learn and develop DNSSEC operational experience before deployment on their production zones. The SNIP team is willing to work with all providers in testing and experimentation."

Experts say it's critical for the U.S. government to maintain its schedule to have DNSSEC fully deployed across all .gov sub-domains by December 2009. They also say it's important for the DNS root zone to be signed.

"There is no question there is a need for DNSSEC," Joffe says. "We are now seeing cache poisoning attacks in the wild...Signing the zone needs to happen this calendar year." ■

## InBrief

### Cisco: Mobile data traffic to grow 66-fold by 2013

Mobile Web traffic volume will double every year between now and 2013, when it will total roughly 2.2 million terabytes per month, according to a report published by Cisco. The biggest driver for the traffic increase is expected to come from video traffic, which will account for roughly 64% of all mobile data traffic in 2013, Cisco projects. From a device perspective, Cisco says handsets and laptops with speeds of higher than current 3G speeds will account for 80% of all mobile traffic by 2013. In addition, the advent of smartphones and laptops with 3G aircards will lead to an explosion of mobile data traffic over the next five years, Cisco says.


### Red Hat looks to simplify JBoss migrations

Red Hat has launched a new open-source project aimed at making it easier for enterprises to move from proprietary Java-based middleware to its JBoss Enterprise Middleware. The JBoss MASS (Migration Assistance) project will provide software to help enterprises migrate to JBoss, as well as an online community to connect new JBoss customers with other customers and partners that have more experience working with the platform. Aaron Darcy, a JBoss product line director at Red Hat, says JBoss has a lower total cost of ownership than proprietary competitors.

### Microsoft tool calculates carbon footprint

A new environmental toolset for Microsoft's Dynamics AX enterprise resource management software lets businesses find out the carbon footprint of various aspects of their operations. The free toolset, called the Environmental Sustainability Dashboard, covers four metrics: direct energy consumption, such as of usage of natural gas on site; indirect energy consumption, such as electricity purchased from a third party; greenhouse gas emissions from an organization's total energy consumption; and greenhouse gas emissions from commuting and business travel. The dashboard has been designed to work with SharePoint, Microsoft's collaboration and portal software. The dashboard's components also integrate into so-called "role centers" in Dynamics, which are customized views used to manage different kinds of information for different jobs.





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# IBM leads IT out of the data center

BY DENISE DUBIE

IBM plans to help customers broaden IT's reach beyond the data center and into managing physical environments, cloud services and virtual resources with one set of tools that improves efficiencies, reduces costs and cuts back on manual labor.

IBM announced last week its new dynamic infrastructure initiative that ties Big Blue's on-demand, adaptive and autonomic efforts together with its vertical industry expertise — garnered over the years from its Global Services group.

IBM is looking to help customers manage IT service delivery and performance across physical, virtual, digital and environmental assets and is packaging its software and services that targets seven vertical industries. The company revealed the strategic direction and a variety of new and updated products at its Pulse 2009 conference, which drew about 3,000 attendees in Las Vegas.

IBM updated a slew of service management products customized to address seven vertical industries, such as utilities, telecommunications, banking and retail. The IBM Service Management Industry Solutions service incorporates technology IBM acquired from MRO Software and Micromuse as well as offerings from the business and technology groups at IBM.

Big Blue wants to help customers connect its

multiple assets and manage services across various elements including, for instance, power and cooling devices, to be able to better assess efficiencies and resiliencies of a company, rather than pockets of IT, business groups or facilities. According to Pete McCaffrey, director of Dynamic Infrastructure at IBM, the packages will help customers accelerate their service management rollouts.

Analysts say IBM is banking on the fact that in the midst of a recession CEOs might be looking at industry-specific offerings that span multiple business units.

"IBM is betting on enterprises consolidating their budgeting and purchasing," says Jasmine Noel, founder and principal analyst at Ptak, Noel and Associates. "This has been happening within IT for some time now as CIOs started initiatives to cut down the number of IT suppliers and the current economic difficulties will only accelerate this for CEOs and CFOs."

Others say IBM emphasized the



**IBM says its XIV Storage System will provide faster access to data across digital media, Web 2.0 and traditional applications.**

need to stretch an IT service management strategy across a company's entire asset inventory and plans to lay out exactly how to converge IT and business processes with a new governance consulting practice and IBM Resiliency Consulting Services, for instance. By improving communications and processes across IT and business groups, says Charles King, principal analyst at Pund-IT Research, IBM can help companies get more out of the infrastructure they have.

"There are literally and figuratively walls and a lack of connections between IT assets and business assets, but we are all moving rapidly toward a future in which it will be possible to connect those siloed assets," King says.

Big Blue also is expanding its technology to take on physical elements that stretch beyond the data center.

For instance, Big Blue unveiled IBM Tivoli Monitoring for Energy Management Software, which

**See IBM, page 15**

## IBM, Juniper join in cloud strategy

BY STEPHEN LAWSON, IDG NEWS SERVICE

IBM and Juniper last week provided a sneak peek at technology that lets enterprise IT managers easily reallocate computing resources between a private and a public cloud.

Using cloud management software from IBM's Tivoli division and a Juniper network, the companies demonstrated a drag-and-drop interface for managing a hybrid cloud infrastructure. It was the first time IBM had shown off technology for shifting work within a hybrid setup, which the company believes will be the dominant form of cloud architecture.

Cloud computing, along with virtualization, can give IT departments more flexibility by letting them separate applications or data from particular sites and equipment. Enterprises are beginning to explore public cloud services partly as a way to avoid some investments in fixed assets, says Nemertes Research analyst Andreas Antonopoulos.

IBM demonstrated how the IBM Cloud Management Console, which already could be used to control a private cloud, can now control a remote cloud as well. The console displayed virtual machines as small boxes color-

coded to show whether they were being used and what for.

IBM has tapped in to Juniper APIs for networks that better serve the needs of hybrid cloud computing, the companies said. Juniper technology will allow easier remote management of clouds over long-distance MPLS networks. Enterprises won't need a single-vendor Juniper network to take advantage of the partners' technology, however, because Juniper uses standards such as MPLS.

IBM's demonstration took place in the data center of the Silicon Valley facility, which also serves as one of nine Cloud Labs around the world where IBM can construct proof-of-concept systems for customers interested in cloud computing. Those customers could be either enterprises exploring private or hybrid clouds, or service providers that want to build their own public clouds as a business, said Jay Subrahmonia, director of IBM Cloud Labs.

Last week's demonstration did not include moving data between public and private clouds, but that could be a future direction, Subrahmonia said.

IBM rolled out a wide variety of cloud offerings, including:

- The Service Management Center for Cloud Computing, a set of products that IBM's clients can use to build and deliver cloud services. At its center are Tivoli Provisioning Manager 7.1 and Tivoli Service Automation Manager, designed to automate cloud deployment and management. The Service Management Center will include at least nine products this year.

- IBM Rational AppScan 7.8, which helps enterprises ensure that the Web services they publish into a cloud are secure and comply with regulations and company policies. Rational AppScan OnDemand allows continuous monitoring of those services.

- IBM Design and Implementation for Cloud Test Environments, which lets customers build a cloud inside their own environments for testing. It can save as much as 20% through quicker provisioning, IBM said.

- Tivoli Storage as a Service, providing Tivoli data protection technologies on an online, pay-as-you-go basis. It will be offered through IBM's Business Continuity & Resiliency Services cloud beginning later this year.

Like IBM, Antonopoulos believes almost all enterprises that use cloud computing will take a hybrid approach. ■



# Microsoft: Don't wait for Windows 7

BY ELIZABETH MONTALBANO, IDG NEWS SERVICE

Microsoft warned corporate customers last week that the migration path from XP to Windows 7 won't be any easier than it is to Vista, and offered recommendations for how companies can move from older versions to one of its newer client operating systems.

"Moving from XP to Windows 7 is not a magic bullet," says Gavriella Schuster, a senior director of Windows product management. "You have the same level of application compatibility from XP to Windows Vista or Windows 7."

Enterprise customers who would have had to replace applications in a move from XP to Vista will still have the same task when they move to Windows 7, Schuster says. However, if customers have already made the leap to Vista, it will be easier to move applications to Windows 7 because it's on essentially the same code base, she says.

In a company blog post attributed to Schuster, Microsoft made recommendations to business customers to help them decide whether they should upgrade to Vista now or wait for Windows 7, which is expected later this year or early next year.

Many companies chose to stick with Windows XP instead of upgrading to Vista, causing Microsoft to keep new PCs with XP pre-installed in the market longer than originally planned. Once Windows 7 is released, which most expect before year-end, Microsoft will have two operating systems built on essentially the same code base in the market at the

same time, and Schuster says customers have asked how to choose between them.

To no one's surprise, Microsoft recommends that business customers still running XP or older versions of the operating system upgrade as soon as possible, citing security and remote-management capabilities in both Vista and Windows 7 that weren't baked into the original XP release.

XP also was released before the majority of PCs in enterprises were laptops, and both Vista and Windows 7 have features that let IT managers better manage and secure laptops and mobile devices for the type of mobile workforce found in enterprises today, Schuster said.

"When you think about Windows XP in that context — it came out in 2001, when less than 10 percent of devices were laptops," she said. "There wasn't ubiquitous broadband. There weren't the levels of regulatory requirements. There weren't data protections."

What may be surprising in Microsoft's message, however, is that the company doesn't care which of its newer operating systems customers move to — Vista or Windows 7 — as long as they do what's best for their individual IT environments.

"What strikes me is that Microsoft is being fairly pragmatic about what the options are for customers," says Al Gillen, an analyst with IDC. "Microsoft seems to recognize the reality that customers aren't going to do what Microsoft tells them to do. They're going to do what's right for them."

The company also introduced the IBM XIV Storage System that it says will provide fast access to data stored in a variety of applications.

Yet for all of IBM's strategy, some analysts say Big Blue will run into a few challenges selling its dynamic infrastructure to enterprise IT executives. For one, despite it being a potential best practice, many in IT still have no authority over other areas of the business, such as power management or facilities maintenance.

"IT people don't own the power or facilities budget," says Andi Mann, research director at Enterprise Management Associates. "IBM is aiming these solutions at business owners and could need to reach even above the CIO level."

Secondly, while cloud computing seems to be all the rage, adoption of cloud technology in external environments might be some time coming.

"Customers want to have internal clouds, to be able to increase capacity and storage in an incremental fashion, but even with that, they are very much still in the 'kicking the tires' stage," says Judith Hurwitz, CEO of Hurwitz & Associates. ■

Indeed, Schuster said Microsoft is "agnostic" about which operating system customers upgrade to. She says Microsoft is trying to set expectations for any upgrade that may be planned or in progress, so that customers aren't surprised by problems or complexities they may encounter.

Customers should examine their application and hardware environments closely to see which would be the best fit for them. "It really depends on the environment," Schuster says.

Schuster did have some advice for customers depending on what operating system they are currently running, and whether or not they have begun migrating to Vista already.

For customers still running Windows 2000, "they clearly need to move fast and need to move to Windows Vista," she says. Extended support for Windows 2000 ends in April 2010, and it will take a company 12 to 18 months to complete the upgrade. "They can't wait for Windows 7," she says.

For companies that are halfway through a migration to Vista Service Pack 1, they should continue that migration as planned, she says. However, if a company has begun piloting Vista and is not yet halfway through the migration, moving to Vista Service Pack 2 — which should be available in April — is a better option.

Some customers have said they plan to wait for Windows 7, and Microsoft is not recommending they change that course.

When Windows 7 is available, it won't be the first time Microsoft will have two operating systems on the same code base in the business market at the same time. Windows 2000 Pro and XP Pro were built on the same code base as well, and many business customers on Windows 98 waited for XP instead of moving to 2000, IDC's Gillen notes.

Windows 7 is essentially the second release of Vista, an incremental update that will include some usability features but not "cause a rift for Windows Vista applications" during a migration, he says.

It will be about as painful for customers to move from XP to Vista as it will be to move from XP to Windows 7, Gillen says, corroborating Schuster's warning. He agreed, too, that a migration from Vista to Windows 7 will be far easier.

However, Gillen says that Microsoft's argument that customers should pick one or the other is more in its own self-interest than an actual necessity for enterprise customers.

"[Microsoft] is trying to use every lever they have to try to encourage customers to move," he says. "But customers are going to make their own decisions based on [their own needs]." Some may find they can stay on XP indefinitely as long as they can continue to patch and support their applications on it. Microsoft ends extended support for XP in April 2014. ■

## IBM

continued from page 14

lets customers automate the reporting of energy consumption by non-IT assets, such as an office building air conditioning system, and generate reports and calculate "what-if" scenarios if the energy dynamics had to change.

Analysts say IBM's plans outpace competitors in the management market because the company understands that what happens in the domain of IT can be applied to facilities and other environments across an enterprise.

"Most of the management vendors remain stuck solely in the IT realm, which is OK for many companies because that is where the pain is most acute, but mature organizations realize the stuff they do in IT can be applied elsewhere and money savings can be achieved," says Glenn O'Donnell, a senior analyst with Forrester Research.

As for information management efficiency, the integrated ProtecTIER Deduplication Appliance works to reduce redundant data across an environment by incorporating server, storage and data deduplication software.



# International wireless show carries on

Latest in Microsoft, Android mobile operating systems to get showing

BY JOHN COX

The only reason an enterprise IT professional would go to this year's Mobile World Congress is to track down a good Spanish Priorat red wine.

The annual GSM cellular industry blow-out in Barcelona won't be quite the party it has been in recent years. The deepening economic crisis has cut into global smartphone sales and adoption of all those optional fee-based infotainment services the industry has been touting. And it could slow down cellco investments in 3G and just-emerging 4G wireless infrastructure and services.

"Most operators we speak to are trying in 2009 to add more value to existing voice and [SMS] messaging services, rather than providing location-based services, mobile wallet, presence-enabled address book and so on," says Luke Thomas, a program manager with Frost & Sullivan's information and communications technology group. "Before they start providing high bandwidth-consuming data applications, they must upgrade their backhaul networks to support next-generation, value-added data services."

Expect more words at the event about Long-Term Evolution (LTE), the cellular industry's 4G framework. But don't figure on much beyond words.

Verizon Wireless CTO Dick Lynch in his keynote address is expected to reiterate the company's promise to have LTE live in the 700MHz band in at least one U.S. market by year-end, and reveal the infrastructure vendors that it will use to do so.

But that token deployment won't change the expected LTE schedule: limited rollouts in 2010, and larger-scale deployments the following year. Wireless consultant Andrew Seybold recently argued that speed alone won't be enough to push LTE adoption. Users want applications that make sense for small-screen mobile devices, and carriers will face new management challenges if LTE cell sites serve both fixed and mobile users.

The emphasis on LTE simply highlights that

it's not yet viable. Enterprise IT professionals are better off focusing on the growing reach of 3G cellular networks for data services, and their carriers' plans to embrace evolutionary upgrades. At MWC, you can expect to hear more debate about the movement to High-Speed Packet Access (HSPA) and HSPA+ cellular services.

Both moves require the availability of spectrum. The GSM Association is expected to launch a coordinated global program to free up and allocate more spectrum for mobile broadband services.

## Client infrastructure

The near-term evolution of cellular is the target for Qualcomm's Gobi2000 radio module, scheduled for deployment in the latter half of 2009. Gobi is the company's programmable multi-mode 3G card: it can support HSPA or CDMA2000 EV-DO networks. The new version adds support for the 800MHz and 900MHz bands used most often in Europe, and is faster on the uplink, up to 5.7Mbps over High-Speed Uplink Packet Access. Also new: the built-in GPS chip is now enhanced with Assisted-GPS, which can coordinate satellite and cellular networks to improve positioning, and with Qualcomm's gpsOne-EXTRA Assistance, which

downloads a positioning assistance data file via an Internet session to speed up initial fixes and overall operation where satellite signals are hard to reach.

Another 4G technology, Mobile WiMAX, also will be making news. Sequans Communications will unveil a highly integrated chip that's smaller and uses less power than before, doesn't need external dynamic RAM, delivers more than 40Mbps throughput, and covers all three global WiMAX bands: 2.3, 2.5 and 3.5GHz. It's aimed at makers of mobile devices and customer premises gear, to exploit emerging WiMAX networks such as the one Clearwire is building in the United States.

## Operating systems

For enterprise IT, handheld operating sys-

tems matter, because they enable the degree of control, security and usability required in enterprise mobile computing.

Microsoft looks to anchor Windows Mobile more securely in the enterprise even as it reaches out to consumers. At MWC, it is expected to unveil Windows Mobile 6.5, a version that makes some dramatic improvements in ease of use and support for touch and gestures. In short, it looks and acts more like the iPhone user interface. The mobile version of Windows has had a lockscreen: the new release reveals more information about new messages, voice mail and the like without having to unlock the phone, and allows selective unlocking of just that new message or voice mail, for example.

The 6.5 release, due on mobile phones near the end of 2009, will also have Internet Explorer Mobile 6, a major improvement in browsing because it's based on the HTML engine of IE 6, with elements of IE 7 and IE 8, which is still in beta.

The user interface fully exploits the new touch and gesture features.

The Google-backed Linux-based Android platform, from the Open Handset Alliance, is expected to show up in a number of new handsets, though Samsung, which was expected to announce its first Android phone, has apparently delayed that news.

Presumably the new crop of phones will be using the latest Android build, RC33, with an array of enhancements, which is just now appearing on T-Mobile's G1, the first Android phone.

The LiMo Foundation has released reference implementations for R2, the latest version of its mobile Linux middleware stack. The code is targeted at operators who can use it to customize a Linux phone at various levels. R2 improves device management, adds an array of security enhancements and improves Web browsing. Ten LiMo phones from NEC and Panasonic will be at MWC, along with prototypes from LG Electronics and Samsung. The foundation also announced plans to include the Bondi specification in the LiMo stack. Bondi is a standard way for Web applications to access phone features and functions, such as a camera or calendar.

"The operators have expressed a clear interest in reducing the number of operating systems in their portfolios, and Linux, Symbian, and Windows Mobile appear to be the preferred OS [options]," says Chris Schreck, research analysts with IMS Research.

"I don't expect Windows Mobile or Symbian to disappear in the smartphone space, but I do expect Linux to grow its market share in 2009," he adds. ■



**The Samsung Ultra Touch is expected to be touted at the Mobile World Congress in Barcelona this week.**



# Force10 unveils virtualization framework

BY JIM DUFFY

Force10 Networks last week unveiled a blueprint for easing the management of virtualized data centers.

The framework includes a suite of terabit-enabled network virtualization and management software as well as "enhanced architectural design elements," Force10 says. Overall, the company's Virtualization Framework is intended to let network and data center managers troubleshoot and benchmark network and application performance in virtualized environments using standards-based data center automation and orchestration technology.

The framework includes use of real-time network traffic analysis, man-



**Force10's switches and routers will take on added virtualization capabilities with the company's Virtualization Framework.**

agement and architectural tools such as Force10's VirtualControl, VirtualScale and VirtualView software. VirtualControl partitions physical network assets to virtualize logical boundaries, enabling one device — such as a switch or router — to act as many devices.

VirtualScale lets network managers consolidate physical network fabrics into a virtualized fabric. And VirtualView enables administrators to see what is happening on the network, and to automate network responses according to resource needs and demands, Force10 says.

VirtualControl and VirtualScale contain features for Layer 2 and Layer 3 environments that help eliminate the need for spanning tree protocols, build resiliency into the network and ensure that traffic for specific applications can be segmented to increase manageability, Force10 says.

VirtualView provides both real-time traffic monitoring using sFlow, and provides orchestration policies accessible through a command-line interface, SNMP and XML-based commands and control provisioning middleware in the future, the company says.

Orchestration tasks include automatically powering down underutilized resources; policies driven by business process or time of day; and resource pool definition and reallocation through dynamic assignment of virtual LANs.

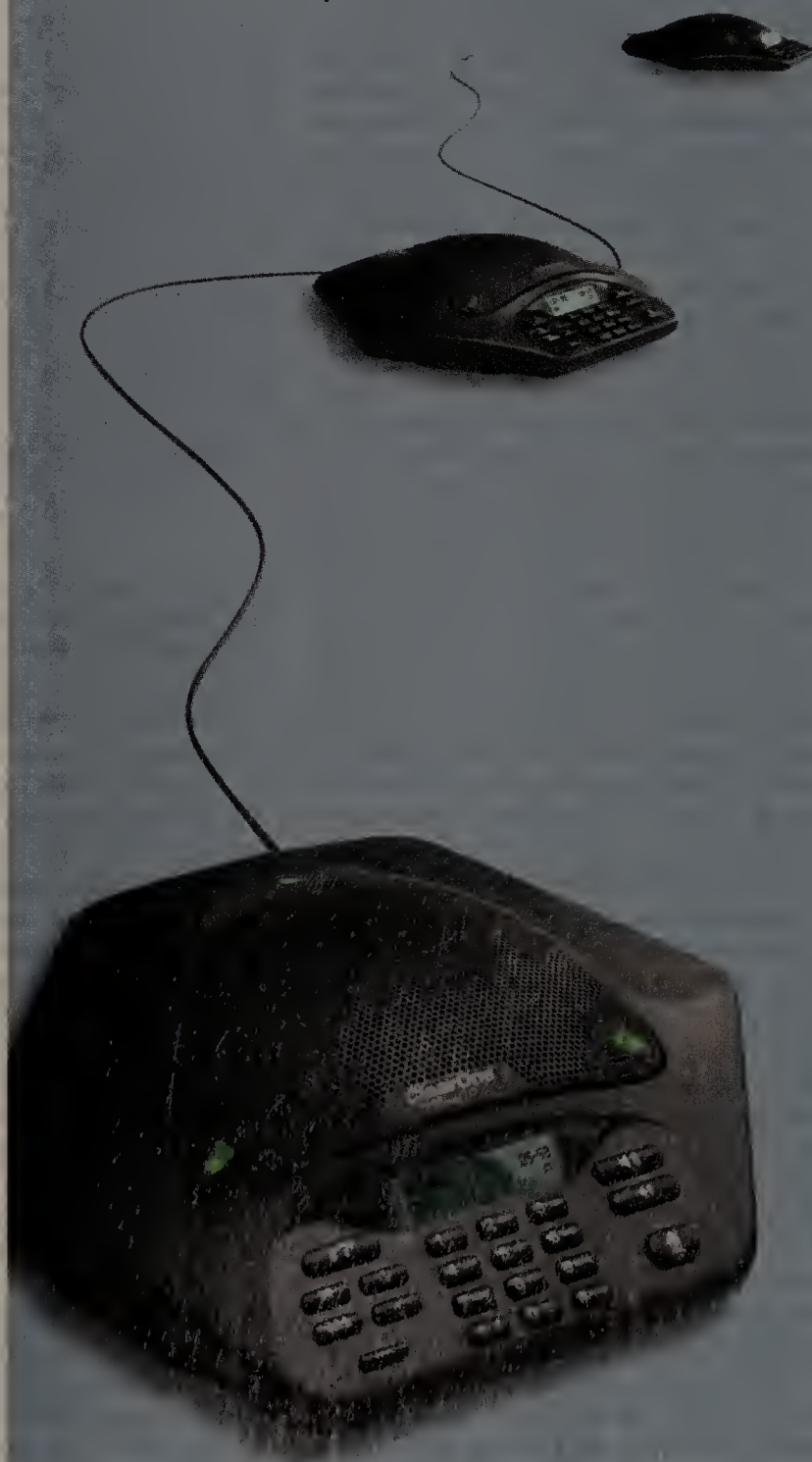
Force10 has a partnership with software developer Cassatt for the orchestration aspect of Virtualization Framework.

All applications run under Force10's FTOS operating system and certain features to fill out the framework will be added in the future, Force10 says. ■

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## Net neutrality

continued from page 1

and businesses.

However, the incumbent telecom carriers successfully lobbied the FCC to revoke these rules in 2005 by arguing that rival cable companies weren't required to let other ISPs use their networks and thus had an unfair competitive advantage over the telcos. Harold Feld, the senior vice president for the open media advocacy group Media Access Project, says the FCC's decision to revoke common carrier requirements sparked fears that ISPs could start blocking their competitors' content and services in order to give priority to their own.

This led many consumer advocacy groups and Internet companies to promote strict enforcement of net neutrality rules, the principle that ISPs should not be allowed to block or degrade Internet traffic from their competitors in order to speed up their own. The major telcos, meanwhile, have uniformly opposed net neutrality by arguing that such government intervention would take away ISPs' incentives to upgrade their networks, thus stalling the widespread deployment of broadband Internet.

While Feld supports implementing net neutrality regulations on ISPs in the United States, he concedes that it isn't an ideal situation.

"Network neutrality has always been a second-best option," Feld says. "Before 2005 we didn't need it because we had a separation rule where carriers had to sell access to their underlying network. AT&T and Verizon were never allowed to touch EarthLink's DSL operation."

Not only have many other countries kept their common carrier rules intact for their traditional telecom providers, but they have extended these policies to cable providers, thus ensuring that cable companies don't have an unfair competitive advantage over DSL providers.

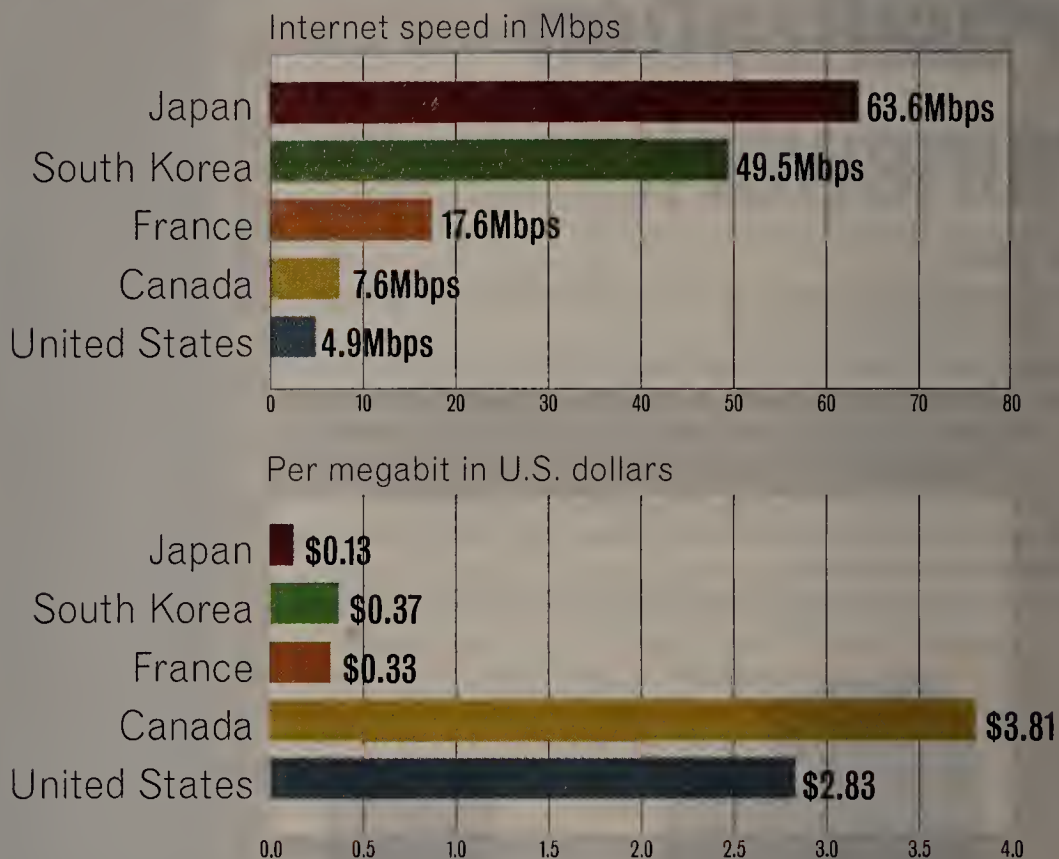
"We're probably the only major country that never had legislation to extend common carrier obligations across other lines," says Mike Weisman, an attorney who specializes in telecom law and who has been a policy adviser for advocacy group Reclaim the Media. "When we settled the question of whether to extend common carrier rules to cable companies, we settled it the wrong way."

The wholesale model for providing Internet access is used in countries such as Japan, South Korea and France, where state-regulated telecom monopolies are required to give access to retail providers. Harvard Law School professor and Web guru Lawrence Lessig, who is also a proponent of net neutrality, has written that this model of delivering Internet service has led to "fierce competition" that has led to a faster, less expensive Internet in other countries (see chart, above). Like Feld, Lessig thinks that net neutrality is a "thin and light substitute" for policies that promote more competition and invest government money directly into building out broadband infrastructure.

Feld says another major reason why enforce-

## Broadband speeds and prices abroad

How the U.S. stacks up with Japan, France, South Korea and Canada



SOURCE: INFORMATION TECHNOLOGY & INNOVATION FOUNDATION

ing net neutrality is less of a priority in other countries is that governments have helped their carriers pay for building fiber networks. After all, he says, ISPs in Japan and South Korea are less likely to feel the need to throttle traffic when their pipes can deliver data at rates that dwarf speeds in the United States.

"In Japan and South Korea, the governments made a deal with their incumbent carriers where they'd help them to build out fiber networks in high-cost areas," he says. "When you have 100Mbps of capacity, then arguing that you need to block content is unreasonable."

The problem with directly comparing overseas network access rules to today's rules within the United States is that the U.S. no longer has a "Ma Bell" telephone monopoly that the government can force to open up its network to competitors. In the absence of these rules, Weisman and Feld says enforcing net neutrality is the next-best option for promoting effective competition.

Weisman says enforcing net neutrality in other countries is less of an issue because governments have already set expectations for how they expect ISPs to behave and regulators merely watch for anticompetitive behavior rather than inspect the Web for traffic throttling.

"You don't find regulators in Japan or Europe watching every bit that passes through the network," he says. "People have thrown up this image of the FCC having a control room to police networks all the time like traffic on a freeway, but that's not something we would

intend to do."

Instead, Weisman says regulators allow companies to come to them with evidence of anticompetitive behavior on the part of ISPs and then decide whether to pursue the case.

David Farber, a professor of computer science and public policy at Carnegie Mellon University, says traditional American political culture represents one of the biggest barriers to deploying an effective national broadband network and to promoting effective competition for broadband services. In short, he says governments in South Korea and Japan have no problems ordering their big companies to help foster competition at their own expense. The American government, on the other hand, has traditionally taken a more hands-off approach and has been squeamish in forcing telecom carriers to share their bandwidth with competitors.

Nippon Telegraph and Telephone (NTT) is essentially Japan's version of the government-regulated monopoly that AT&T used to have in the United States. Farber says because of NTT's special position as Japan's dominant telecom carrier, the government has no qualms about telling it what to do.

"Basically, Japan's ministry of communications advises NTT of what they would like to see happen," he says. "And NTT unsurprisingly says, 'Yes sir.'"

Farber says the only reason Japan can get away with bossing around its big telecom com-

**See Net neutrality, page 30**



# Google's Latitude: Not new, but worrisome



**NET INSIDER**  
Scott Bradner

**G**oogle recently made a big splash when it announced Latitude — an application that lets you let your friends know where you are in real time. The size of the splash is a bit puzzling because there is almost nothing new or novel in Latitude. But there are reasons to talk about the service anyway.

Latitude is enabled by an application that can be loaded on some cell phones and laptop computers. You can configure the application to send Google the location of the device. You then configure the Google

Latitude service to enable other specific phones or computers to receive information on your location. The information provided to each of the other devices can be your actual location, a location you select (whether you are at that location or not) or no location information at all.

There is nothing particularly new about the service Google is providing with Latitude. Location-based services have been available for most of a decade. There are multiple services around that enable parents to track their kids' cell phones or employers to track their employees' BlackBerries. But, likely because it was Google announcing a service, the press paid more attention than the service warranted.

Also, likely because it's Google, the privacy community paid a lot of attention.

The most far-out response has been from Privacy International, which engaged in a little hyperventilating over a quite real, but easy-to-fix flaw in the Google application. Because the current version does not constantly tell the user that location reporting is enabled, it is theoretically possible for someone to enable Latitude on a user's phone without him knowing it.

As a card-carrying member of the privacy community I do have worries about Google's new service that I've not seen expressed elsewhere.

Google is basically a set of vast databases with interfaces to cash registers. The company knows where almost everything is in the Internet — you can tell Google to ignore your corner of the 'Net but if you do so your corner of the 'Net is effectively invisible to anyone who does not already know of its existence. Google also knows everything that its users are interested in, and in many cases, every place they have wandered on the Internet through its recording of search queries and through many companies subscribing to Google Analytics. Now, for the users of Latitude, Google knows every place you wander in the physical world.

I have no idea what use Google might do with this information and we may never be quite sure what it does in fact do. Google's privacy statements (general and for mobile) are less than precise when saying what use it makes of the information it collects. These statements also do not say how long Google holds onto information, although elsewhere it has given hints. (See "Google data policy no prize", [www.nwdocfinder.com/8724](http://www.nwdocfinder.com/8724).)

Google's introduction of Latitude further legitimizes third parties tracking where people are (the phone companies have been doing it just about forever). At the most benign it will mean more pop-up ads for the Starbucks a block away from you. We will only find out about the other extreme over time.

Disclaimer: Few people consider Harvard benign and, I expect, some consider at least parts extreme. But I know of no university position on Google as the world's database, so the above are my mutterings.

*Bradner is Harvard University's technology security officer. He can be reached at [sob@sobco.com](mailto:sob@sobco.com).*

## Right-sizing your telecom team



**EYE ON THE CARRIERS**  
Johna Till Johnson

**I**s your telecom department overstaffed? If you're like many of my clients, you've been asked that quite a bit recently — usually by higher-ups looking to cut costs. No surprises here: That's a pretty universal sentiment. The IT budget of virtually everyone I'm speaking with is flat or declining for 2009/2010.

So how big should a telecom department be?

First, some baseline metrics. The ratio of IT staffers to employees is anywhere from 1:37 (for very small companies) to 1:77 (for those with more than 10,000 employees). Seventy-three percent of all companies have separate telecom/communications teams. And the per-

centage of telecom staffers to IT staffers ranges from 3% (large companies) to 37% (small companies).

That's a pretty big swing, so let me explain: Except for the smallest companies — those that have one or two IT generalists — there are at least a few dedicated telecom staffers. If your total IT team is, say, seven, you're likely to have two to three folks that spend some or all of their time on networking issues — which gives you that 37% figure. But if you're an organization with thousands of IT employees, chances are that only a few percent are on the telecom team.

Keep in mind that these are general numbers; the optimal size varies across verticals and by factors such as user types and the degree of geographic dispersion of the company.

So back to the question at hand: Is your telecom department overstaffed? Probably not. I've done several staffing assessments for

clients in recent weeks, and I've been somewhat surprised to see how closely they map to optimal for their organizational sizes and types.

A lot depends on what specific people are doing, though — and as they say, the devil's in the details. Some of the typical functions that a telecom team handles include data networking (configuring and managing routers); voice networking (configuring, installing and supporting phones); carrier services management and procurement; cellular management; and billing validation.

That's all well and good, but it leaves out some of the most critical IT initiatives that many companies are launching: VoIP, mobility, unified communications (UC) and security. Very few organizations have a dedicated communications security staffer — or even someone who serves as the go-to person for communications security. With respect to UC, the project is increasingly driven by folks in the desktop or messaging groups — which I believe is a mistake. And when it comes to VoIP and mobility, it's critical to have someone on board with skills to handle emerging applications.

So the question you really should be asking isn't whether your telecom team is overstaffed. It's whether your folks are doing the right things. Are your voice and data folks working on a VoIP strategy? Do you have someone assuming responsibility for security? Someone handling emerging applications (both wired and mobile)? If the answer is yes, chances are that you can feel pretty good about the size and focus of your telecom team. If not — you know what to do.

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# WAN critical to virtualization payoff

BY JIM DUFFY

Guaranteeing application performance over a WAN is hard enough. Now try doing it in a virtual environment.

WAN optimization vendors big and small are developing versions of their products specifically for guaranteeing performance of virtualized applications delivered to remote offices from data centers. In so doing, they are looking to address challenges companies face in providing LAN-like performance for application delivery while availing themselves of the reduced cost and increased flexibility that virtualization provides.

"The biggest issue when you're looking at virtual traffic is the fact that, much like voice, much like video, it's live," says Chris Silva, an analyst at Forrester Research. "If you're accessing it remotely and there's a glitch, you may have an application timeout, you may literally lose connectivity. It's really critical to have real-time interaction speed with that environment when you're working in it virtually. Think about it like any other live, real-time protocol."

Desktop virtualization products such as VMware's Virtual Desktop Infrastructure (VDI) are designed to replace traditional PCs with virtual machines managed from the data center. The potential benefit is a reduction in operating cost, increased control of desktop management, and extension of critical services, such as business continuity and disaster recovery, to enterprise desktops.

But when desktop virtualization is deployed over the WAN, latency and bandwidth constraints limit its effectiveness. According to Cisco, which has an arrangement with VMware for optimizing VDI over the WAN, customers face several challenges (see graphic, above):

Cisco says its Wide Area Applications Services (WAAS) product can accelerate the performance of all applications accessed through VMware VDI by reducing Remote Desktop Protocol bandwidth demands by 70%. The company also says WAAS can increase by fourfold the number of VDI users an infrastructure can support, and improve print operations by 70%. The appliance is designed to accelerate virtual image backup by 50 times, thereby reducing bandwidth by 90% for business continuity functions; and providing a 60% to 70% reduction in overall bandwidth requirements.

Other competitors in this market include Citrix and Riverbed. A host of smaller players also are fighting for their share.

Among them is Dimension Data, an integrator and reseller of Cisco's WAAS appliance integrated with Microsoft Windows Server. Its offerings address the reality that VDI environments force users to deal with different application behavior and bandwidth requirements than a physical or local hosting infrastructure.

"The impact of virtualizing technology from many physical infrastructures into one is that

## Virtually impossible?

Challenges in optimizing WAN bandwidth for virtual desktop infrastructure (VDI) environments:

- Gaining visibility into and control over optimizing WAN bandwidth and application performance.
- Understanding how desktop virtualization is used throughout the WAN.
- Ability to follow the user experience.
- Detecting if specific branch offices suffer from degraded performance.
- Optimizing tasks in the face of voluminous VDI traffic.
- Protecting VDI traffic competing with other types of flows in the network.
- Poor performance of Microsoft's Remote Desktop Protocol over the WAN.
- High-bandwidth consumption of VDI traffic.
- Limited scalability.
- Poor performance of centralized printing and increased costs of printing at the branch office.
- Time and bandwidth required for transfer of virtual images.
- Maintaining continuous availability within and across the data center for VDI.

SOURCE: STREAMCORE AND CISCO

you'll need greater bandwidth," says Lawrence Van Deusen, national practice manager for network integration at Dimension Data North America.

But greater bandwidth alone is not enough, Van Deusen notes. It must also be optimized for the unique behavior of VDI flows.

"[Users need to assess] new traffic patterns, and the impact the traffic has in terms of the capacity to support everything coming back to the data center," he says.

Another player in the VDI WAN optimization market is Certeon. It makes virtual appliance software that runs natively within a VM infrastructure and is designed to provide application acceleration and WAN optimization to remote sites.

The company's aCelera software runs on standard x86 systems and is supported by Microsoft's Windows Server 2008 Hyper-V and VMware ESX and ESXi hypervisors.

The software is designed to reduce application response time and enable WAN optimization without requiring the space and expense of separately managed, single-purpose boxes.

"We took a Layer 7 approach where if you could understand the application and the objects of the application, then you could do a better job at acceleration," says Gareth Taube, vice president of marketing. "We fit right in with the corporate strategy to virtualize applications, to get the savings and control from data center consolidation."

Still, there are unique considerations when

optimizing bandwidth for virtual rather than physical applications. The application has to have a small footprint because it will be sharing a hardware platform with other VM applications, Taube notes.

And the efficiency of the WAN accelerator is critically important, he says, because it has to be well integrated with the entire VM infrastructure.

"The real payload in WAN acceleration is the differencing [between virtual images of an application] that prevents you from sending the same data twice," Taube says. "And the biggest impact of that is how much memory and disk you have to store this history so you can do the matching. So it's very important to work tightly with the virtual infrastructure so you have dynamic provisioning of this, and so you can provision your acceleration application to be optimum to the user population you're servicing."

Other challenges arise in gaining visibility into and control over optimizing WAN bandwidth and application performance in VDI environments, according to Streamcore, a developer of monitoring systems for WAN optimization and application acceleration appliances.

With visibility, users need to understand how desktop virtualization is used throughout the WAN; they need to be able to follow the user experience; and they have to be able to detect if specific branch offices suffer from degraded performance. ■



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# Data center: Form follows function

BY JIM HULL, GROUP HEAD, MASTERCARD GLOBAL OPERATIONS SERVICES, GLOBAL TECHNOLOGY AND OPERATIONS

**A**merican architect Louis Sullivan, the father of modernism, is widely credited with the key axiom of 20th century modern architecture: "Form follows function." That adage is also vital to data center design.

Sullivan put the axiom to work in 1891 in St. Louis with the design of one of the world's first skyscrapers, The Wainwright Building, and more than 110 years later MasterCard Worldwide employed Sullivan's axiom in the design of its data center in suburban St. Louis.

When planning to update or construct a data center, functional requirements determine the design, old ideas mesh with new and technological advances feed a progressive approach. To maximize a data center build-out designers should examine three key concepts with Sullivan's axiom in mind: agility, reliability and cost.

## Agility

While it may be peculiar to regard a mostly rigid, staid structure as agile, a data center requires agility to meet business demands. Agility in a data center is the ability to sense and react efficiently and effectively to environmental change. For better agility, a data center's form should follow its function:

- Make sure the raised floor and incorporated under-floor cable-tray system are of the right height and dimensions to facilitate organization and easy access for installation and equipment upgrades.
- Incorporate an equipment staging area separate from, but with proximity to, the data center. Shedding cartons, crates and packing materials outside the data center helps prevent contamination from dust and debris.
- When building a data center, design the floor to be level with adjacent floors, eliminating the need for entry ramps and making load-in and -out easier and safer.
- Construct a loading dock adjacent to the data center. A dock avoids the need for an external ramp, also making it easier to move large equipment in and out. Maximize ceiling height within the data center to facilitate heat dissipation and reduce server cooling costs.
- Incorporate hot/cold aisle controlled air-flow layout, which can be essential in diminishing the risk of overheating and damaging equipment in enclosures and cabinets. By segregating cold air intakes (generally the front of equipment cabinets) from hot exhaust (typically expelled behind the cabinets), the direct transfer of hot exhaust air from one machine to the intake of another is nearly eliminated.
- Don't skimp on floor space. Plan for growth to meet data center demands for additional

processing capability energy supplies, as well as increased storage capacity. And don't forget service requirements; ensure that your design allows for easy access by technicians as well as equipment movement. By outlining your anticipated requirements and the footprint of the equipment on the floor, you'll avoid overlooking important requirements.

## Reliability

The 2N+1 concept is an easy calculation for commodities such as energy, capacity and storage; consider the extrapolation for the physical plant:

- In building its St. Louis data center, MasterCard designed it to the seismic standards of earthquake-prone California, and constructed it to withstand sustained 150 mph winds. Its electrical system is built to near-disaster-tolerant specs.
- Multiple, diversely routed energy sources are another uptime ticket. The MasterCard data center has access to two commercial electrical stations and is backed up by prime-duty generators and a cache of fuel.
- Don't let your data center be threatened by something as mundane as utility dredging on the perimeter of the property. Consider the robustness of underground conduit, and consider how the growth of equipment and cabling inside the data center walls will impact the surrounding ductwork.

## Cost-effectiveness

Obviously monetary resources are not limitless, so cost-effective design is fundamental to long-term success. For better cost-effectiveness, again, form should follow function:

- Data center managers should demand a voice and fully participate in all new data center strategy, design, construction and budget meetings. Accountants and facilities personnel not CTOs. Eliminating or limiting features or budget-line items may seem effective on paper, but ill-considered cuts could result in serious service interruptions downstream.
- As much as possible, plan for the future. It's much easier and ultimately more cost effective to implement needed features in build-out than to retrofit. Pay close attention to data center and equipment innovations to determine forward-looking budget strategy. For instance, cooling has come full circle. Previously, mainframes were water cooled, followed by servers

cooled by air. Now, many companies are advocating solely water cooling with integrated water-rack cooling systems. Racks alone are a prime example of changing technology, increasing in sophistication over the years. So, if you are building a data center today, consider the need for incorporating water cooling.

- More companies are going green because customers are demanding it — they want to do business with companies that are environmentally responsible. Beyond that, there may be inherent cost savings; for instance, design the data center roof to collect rain water for reuse in server cooling.

- A growing number of companies are conforming to Leadership in Energy and Environmental Design certification. LEED recognizes performance in five key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. The LEED Green Building Rating System encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria. It is a third-party certification program and the nationally accepted benchmark for the design, construction and operation of high-performance green buildings. LEED certification speaks volumes about your commitment to a green future.

- Develop partnerships with key vendors. Buy from multiple providers to leverage competition, but also evaluate strategic vendor partnerships. Consider adopting the philosophy that even partners need to earn your business each and every day.

- Adopt virtualization technology, using software to scale out rather than up. This reduces server footprint and uses a greater percentage of the processing capacity that you already own. Through virtualization in the MasterCard data center, in the Windows world, the number of server instances is nearly double the actual server population.

These best practices coalesce into a cohesive data center approach that Sullivan likely would endorse: Focus on the future with an eye toward the wisdom of the past. It may seem rudimentary to ensure a 21st century data center is modern, but often the greatest wisdom is found in the simplest ideas. When form follows function in agility, reliability and cost, what follows is data center success. ■

This vendor-written tech primer has been edited by Network World to eliminate product promotion, but readers should note it will likely favor the submitter's approach.





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## GEARHEAD

Mark Gibbs

# Exploring TiddlyWiki

I have been discussing TiddlyWiki, a personal wiki system I think is one of the most compelling ideas I've seen in a long time, and apparently great minds think alike because I received a letter before Christmas from longtime reader Brandon Sussman, which I somehow missed in the whirl of the holidays. Sussman wrote recommending TiddlyWiki and said: "I think I found the killer app of killer apps ... Words like 'recursive PIM' and 'one page wonder' are dancing in my head." Exactly! This tool is that cool.

Now, I have had no major problems getting TiddlyWiki working, but of course, as with all software, YMMV (Your mileage May Vary).

Reader Gordon Andrews wrote: "I thought you'd found a new type of sliced bread until I went to a few sites and tried to learn what excited you. I downloaded. I set up pages at Tiddlyspot. I tried to find a good tutorial/getting started/beginners guide. I tried to learn. I even joined the discussion group at Google! Right now I think TW is something a sadist should recommend to masochists."

I had a telephone conversation Andrews and he's right. The documentation for TiddlyWiki is pretty weak, but that said, it is a free open source project and, as such, the developers have concentrated on getting it working instead of explaining it. And that's where I come in ....

So far we've discussed what TiddlyWiki is, the Tiddlyspot service, a few "flavors" of TiddlyWiki (original, MonkeyPirateTiddlyWiki, MonkeyGTD, and d3 ... there are many more), and some of its central concepts (single file implementation, portability, tiddlers, shadow tiddlers, editing). This week, we'll dive a little deeper.

Start by downloading a copy of the standard version of TiddlyWiki and experiment with that. I recommend this approach because TiddlyWiki, when hosted, has some subtleties and gotchas that are different from a

locally hosted version of the system.

Tiddlers don't, by default, use HTML for formatting, they use something called TiddlyWiki Markup. Although this markup works perfectly well it is a horrible system for the simple reason that every tag has a different structure that is nothing like its HTML equivalent. You can, however, enclose your HTML in `<html> ... </html>` and voila! You can even mix multiple HTML sections with multiple TiddlyWiki Markup sections.

So, now let's move on to systems stuff. I've already mentioned shadow tiddlers — that is, tiddlers that have system functionality. The TiddlyWiki documentation defines five more components: HTML Templates, Style Sheets, Macros, Plugins and Cookies.

HTML Templates come in three types: PageTemplate, ViewTemplate and EditTemplate. PageTemplate determines the overall layout of the page that displays the TiddlyWiki, while the ViewTemplate controls the layout of each tiddler in the TiddlyWiki. Not surprisingly the EditTemplate tiddler determines how the content of a tiddler is displayed during editing. You can modify these to your heart's content.

Style Sheets are divided into StyleSheetColors, StyleSheetLayout, StyleSheetLocale, StyleSheetPrint and ColorPalette. You can forget about these because there's a StyleSheet tiddler which encompasses all of the functionality of the other style tiddlers and is deemed by the developers as "future- and upgrade-proof".

This is an example of where the TiddlyWiki system demands a lot of creative exploration to figure out how to get deep into the system. Despite that, TiddlyWiki in any of its main distributions is extremely serviceable and effective. Next week we'll start looking at the exciting parts of TiddlyWiki: the Macros, Plugins and Cookies.

*Gibbs continues to explore his tiddlers in Ventura, Calif. Your discoveries to gearhead@gibbs.com.*



Keith Shaw

## COOLTOOLS

# More odds and ends from the office

A lot of smaller devices have been piling up lately, so I'm going to do a bunch of quick mini-reviews to "clean out the in-box":

**The scoop:** PowerDock 4, by Griffin Technology, about \$70.

**What it is:** If you have multiple iPods or iPhones in your family, getting them recharged means grabbing a bunch of cables, or you could use the Griffin PowerDock 2 device. I recently realized that I now own two

iPods (original Nano and a newer Nano) and an iPhone, and my wife has an iPod as well. Charging them in one location with the PowerDock 4 saves a lot of cable clutter and frees up a lot of power outlets (one outlet can charge four devices). Also, kudos to Griffin for making the brushed metal case a lot smoother to the touch. Having that many charging ports may seem like overkill, but eventually you too may have four different Apple devices that need recharging.

**Grade:** ★★★★★ (out of 5)

**The scoop:** ShowTIME audio video cable for iPod/iPhone, by Scosche, about \$40.

**What it is:** This 6-foot cable includes the iPod (and iPhone) universal port on one end, and composite cable (red, yellow, white) on the other end. The cable lets you connect an iPod (Touch, third-generation nano, Classic, iPod video) or iPhone to any video source with composite inputs, so you can

view photos or watch videos on the larger screen. This is perfect for in-car entertainment systems; instead of watching videos on a tiny iPod screen, you can let everyone watch (except the driver, of course).

**Grade:** ★★★★★

**The scoop:** ThinkPad USB Portable Secure Hard Drive, by Lenovo, about \$180 (for 160GB; 320GB costs \$220).

**What it is:** This is a portable hard drive that looks like it merged with an ATM keypad. The addition of the keypad on the front of the device provides one layer of security — a PC won't recognize the drive until you punch in the correct PIN. As many as 10 user passwords (six to 16 digits) can be stored on the device, and the drive supports 128-bit AES security along with full disk encryption. The drive includes non-skid, anti-vibration pads, a built-in USB 2.0 cable (along with a supplemental USB power cable) and a carrying case. The drive also is compatible with the Rescue and Recovery software on ThinkPad and ThinkCentre systems. The user guide provided easy instructions on how to add passwords or change the administrative password on the drive. Just make sure your users don't tape their PIN on the back of the drive.

**Grade:** ★★★★★



**The PowerDock 4 by Griffin Technology rids you of cable clutter and frees up a lot of power outlets.**

*Shaw can be reached at kshaw@nww.com.*





# Tweet to compete

*Smart social networking has become essential for most IT execs*



BY JASON MESERVE

If you still think Facebook is for twentysomethings clinging to their college years and Twitter is for people with too much time on their hands announcing what they had for breakfast, think again. Social networks such as Facebook (150 million users), Twitter (4.4 million users) and LinkedIn (34 million users) are some of the fastest growing sites on the Internet and they're not being used for aimless chitchat or sharing the latest gossip.

Busy IT professionals are using social networks for serious IT business — everything from customer service to marketing a product to marketing themselves to keeping up with industry news to getting fast answers to a technical question.

According to a *Network World* survey of 583 IT execs, 84% said they visit social networking sites on a regular basis, compared with 68% last year. In fact, half of our respondents said they visit a social-networking site at least several times a week. Only 29% said they visit social-networking sites solely for entertainment purposes, and 64% said they are using social networks more than they did a year ago.

LinkedIn is the most popular site among IT pros, with 63% of respondents saying they use it, followed by 44% who say they are on Facebook and 14% who use Twitter.

While there are hundreds of social networks out there (Bebo, Plaxo, Plurk, FriendFeed and Jaiku, to name a few), most people stick to the big three:

Facebook, LinkedIn and Twitter.

## Sell your product/company

Comcast (twitter: @comcastcares) might be the standard when it comes to using Twitter to help customers in need. Long derided for bad customer service, the company is turning that around with its Twitter efforts. Twitter about any Comcast-related issue and you'll likely receive a reply in a few minutes asking if they can help. You can do the same.

Jason Williams, (twitter: @whastupgold) product manager for WhatsUpGold at Ipswitch Software, uses Twitter in a similar fashion to Comcast. He has set up search terms related to his business that he monitors via an RSS feed. If he picks up on a Tweet that might be relevant, he hits reply to engage the person in conversation. "It's a little more of a personal approach," Williams says.

"I've been able to connect with some existing customers as well as people who have Tweeted about network management solutions," Williams says. "I've even gotten a few people to trial our software."

A relatively new feature to LinkedIn is its Groups function, which lets members share information around a common topic or interest. Set up a group for your company and invite customers and fellow employees to share tips and keep up to

## +GETTING STARTED

**Sign up for an account.** - Twitter, LinkedIn and Facebook are all free services.

**Find colleagues and friends.** - Most sites allow you to import e-mail contacts to search for people you already know. An easy way to start building your network.

**Connect or not?** - Everyone has an opinion on who to "friend" or not in a social network. When just starting out, pick people who you think will add value to your job, says Wayne Bogan of Spirit Telecom.

**Contribute.** - "You can't fake it. If everyone does, community will dry up," says Josh Stephens of SolarWinds.

**30 days.** - Particularly with Twitter, spend at least 30 days experimenting with it in order to fully understand its power. Two days on the network is not enough.

"There's an **OPPORTUNITY LOST** by not being on the larger social networks."

DAN SCHAWBEL, A SOCIAL MEDIA SPECIALIST AT EMC.





date on the latest news coming from your organization.

Facebook offers similar group and fan page functions. Members can post comments, photos and more to the site. One caveat to Facebook groups is a lack of notification when something new is published. You have to check back often to see if anything new or interesting is published.

## Sell yourself

It's not all about your employer. All social networks blur the line between work and personal, which means you can use these networks to build your own brand.

"There's an opportunity lost by not being on the larger social networks," says Dan Schawbel, a social media specialist at EMC and author of the upcoming book titled *Me 2.0*. "People are already searching for other people. Recruiters are looking to fill a void. If they don't come across your name, you'll miss out."

Schawbel equates one's presence on social networks as a living resume that can show both your professional skills as well as everything else you do in life. "You're painting a picture of who you are," he says.

Search engine optimization techniques help put company sites higher up in search results pages. Schawbel says you can use similar techniques to improve your search engine ranking by linking your multiple social profiles together. This is particularly important on Twitter and LinkedIn, where your information is more easily trolled by search engine crawlers. If you have a blog, make sure your various profiles link to it, thereby increasing your search engine worthiness. Facebook is a walled garden and the information within is not as easily indexable, but is nonetheless valuable because it can function as a "mailing list" when you're looking for a job or opportunity.

Building such a network does not happen overnight. "If you forge the relationship over time, then you are seen as a contributor to the community so more people are apt to help you out," Schawbel says.

On the flip side, the blurring of the personal/business boundary in social networks can have negative ramifications if the wrong things are posted. Common sense advice from Nina Buik, president of HP's Connect user community: "Look ahead 10 years from now, whatever you post on [a social network] now; will you be happy with in 10 years?"

## Get answers to questions

Got a technical question that needs answering? If you have a big enough following on Twitter or Facebook and/or belong to certain groups on LinkedIn, posing your question to these groups can be a timesaver.

See Social networks, page 28

There are tons of social networking sites vying for your attention. There's Athlinks for athletes, Boomj for baby boomers, Goodreads for book lovers, Ravelry for people who knit, and Vampirefreaks, which needs no further explanation. But **three sites** have emerged as the preferred choices of most IT execs - **LinkedIn, Facebook and Twitter.**



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## Social networks

continued from page 26

"2,200 people are following me in some way and any given time I put something out there, some percentage of those folks are paying attention and may answer," says Dan York, director of emerging communications technology at Voxeo. He adds that he can save hours of time by posting a question to his Twitter network, which helped him solve a vexing Wordpress mirroring issue recently.

Social networks can be used to get a feel for how different industries handle technical and business issues. "I am very interested to get the CIO perspective from outside the legal environment," says Jeffrey Brandt, chief information and knowledge officer at the Washington, D.C., law firm Crowell & Moring. He belongs to knowledge management and CIO-related groups on LinkedIn and finds "a lot of people's thought processes are amazing."

### Keep up with news/trends

RSS feeds getting to be too much? Twitter and its many associated applications can help you keep tabs on the world around you or at least direct your attention to what is most important.

"It's an attention lens for me," York explains. "I follow a certain number of people that I have deemed to be authorities in their realms, so their links are of interest to me."

Many news sites offer Twitter feeds as a way to catch up on headlines of the day without browsing a site or delve into an overflowing RSS reader. "I saw Nortel was filing for bankruptcy first on Twitter," says Wayne Bogan, CTO of Spirit Telecom in Columbia, SC., who has his BlackBerry set to check his Twitter feed once per minute.

During a December 2008 ice storm that knocked power out to more than 300,000 customers, Public Service of New Hampshire (twitter: @psnh) used Twitter to deliver status updates on how many customers were still without power and the progress that was being made. For those with limited connections, the updates proved invaluable.

Social networks also can be used to keep tabs on vendors. Brandt, who takes great care of his LinkedIn "Rolodex", caught a vendor off guard when he asked who his new salesperson was after the last one left. Brandt noted the departure through a change in the person's LinkedIn status. The vendor, it seemed, did not know the salesperson had left.

### Get involved

You don't have to be on a social network 24 hours a day to enjoy the benefits. Keeping your profile up to date on LinkedIn, staying in touch with former colleagues on Facebook and jumping into the occasional conversation on Twitter is enough to build your social-network persona and might find you that perfect hire for a job opening or provide the answer to a vexing question.

Meserve can be found on Twitter at <http://twitter.com/jmeserve>.

## HOW TO CREATE A PRIVATE TWITTER

BY JASON MESERVE

If you like the Twitter interface for connecting with office colleagues, but want to keep your posts private, there are a couple of options available for building an invite-only microblogging network.

**Yammer** - A free service that lets anyone in the same e-mail domain (i.e. nww.com) communicate with each other in a similar fashion to Twitter. For a \$1 per employee per month fee, companies can get additional administrative and security tools for managing their own Yammer network. (Read a story about open source movers and shakers who Twitter.)

"Yammer is good for sharing links and acting as a company IRQ network," says Tony Byrnes, founder of CMS Watch, whose 12-person staff is spread around the country.

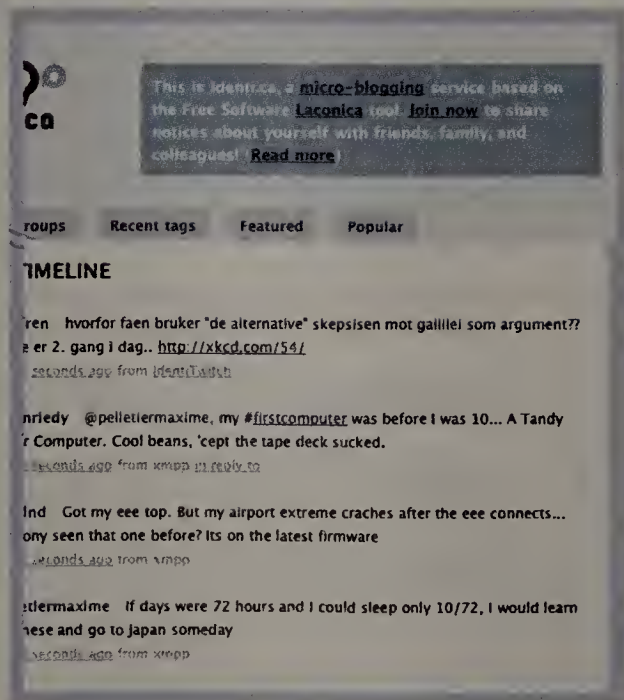
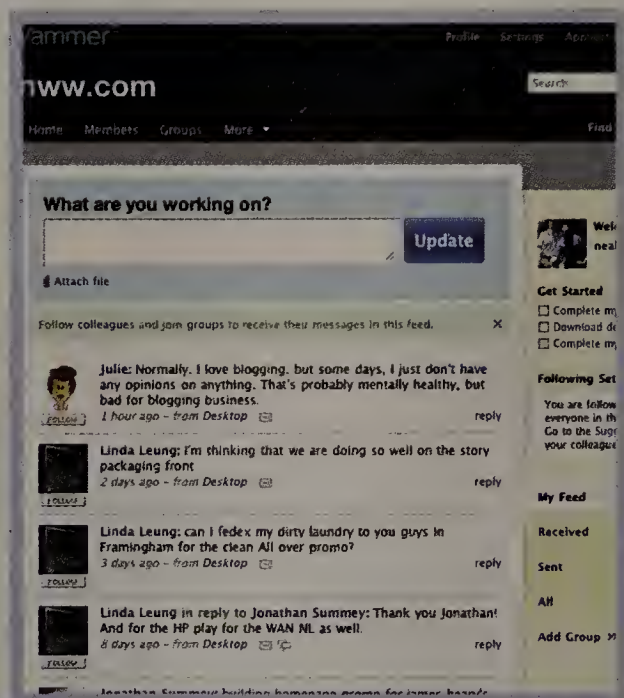
While Yammer does have an archive, Byrnes notes that is not very searchable.

**Indenti.ca / Laconica** - An open source Twitter-like service built on the Laconica platform. It can be used in two ways: As a closed network similar to that of Yammer or as an alternative to Twitter altogether.

Dan York, director of emerging communications technology at Voxeo, uses Indenti.ca as a "Plan B" to Twitter. "I've seen the power in public microblogging and I'm leery of being locked into the use of only Twitter," York says. He configures Indenti.ca to cross post his items to his Twitter account, keeping both up-to-date simultaneously.

One can also download the code and set up an Indenti.ca server behind the firewall for secure internal microblogging. "Indenti.ca is much more technical and suite for real administrators and developers, that's what I like about it," says Kevin Mullins, team leader for infrastructure services at the Massachusetts Institute of Technology.

"I could see Laconica being useful for companies that want to experiment with internal microblogging, want it inside of the firewall and don't want to pay for software to experiment with," York says. "Like any open source software, it does give a company precise control over their software."





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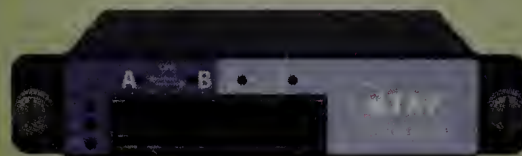
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## Outsourcing

continued from page 1

will continue to drive buyers to make costs containment a priority in infrastructure outsourcing, while objectives such as business enhancement will temporarily lose their attractiveness," Gartner states.

The market research firm reported that the average contract size among the top 20 outsourcing deals inked in 2008 reached \$998 million and the average length exceeded six years. Companies such as AT&T, EDS and Tata Consulting Service contracted multi-year, megadeals in 2008, while IBM in late December signed multi-year outsourcing contracts with Whirlpool and Sara Lee, the values of which were not disclosed. Overall IBM reported it had signed services contracts totaling \$17.2 billion, including 24 greater than \$100 million, in the fourth quarter.

"The pipeline for the leading outsourcers is strengthening as they get a lot of distress calls from new prospects. We haven't tracked a slow-down in the market yet," says Ben Pring, research vice president at Gartner.

"IBM was able to be quite bullish and quite confident on its positive guidance because of its outsourcing backlog," Pring says.

Others, such as HP-EDS also entered 2009 with momentum. IBM Global Services' top challenger won five of the largest deals in 2008, Gartner says.

Despite IBM's contract wins, the company was actually absent from the list of the biggest deals, evidence of a different dynamic among IT buyers. "TPI continues to see overall total contract value size decrease, which is a function of shorter contract duration (under five

## Net neutrality

continued from page 18

pany is because NTT has traditionally seen its work through the spirit of nationalism; in other words, while the company may not be as profitable as it would be if it were free from government meddling, its leaders see their work as necessary for the betterment of Japanese telecommunications.

"If the government promotes competition by demanding that their big carrier gives other ISPs access to their own fiber, then it becomes hazier what their motivation is for increasing their capacity and capabilities of something they know they're going to have to share," he says. "If you have national spirit about it embedded within the corporate culture then it can work. But that's not built into American corporate culture."

But beyond the pros and cons of how to foster more effective broadband competition within the United States, Feld says the most important lesson the country can learn from international broadband policy is the need to have government invest in helping carriers build out better networks. ■

## Outsourcing: Who's doing it big

Several companies signed multi-year deals in 2008 with values of \$1 billion or greater, securing outsourcers' bankrolls into 2009 and beyond.

Customer	Primary vendor	Contract value	Duration	Industry	Service type
Citigroup	TCS	\$2.5 billion	9.5 years	Financial services	ITO and BPO*
Royal Dutch Shell	AT&T	\$1.6 billion	5 years	Manufacturing: Process	ITO
Prudential U.K.	Capita	\$1.5 billion	15 years	Financial services	BPO
Bombardier Transportation	CSC	\$1.2 billion	7 years	Transportation	ITO
Transportation Security Administration	Lockheed Martin	\$1.2 billion	8 years	National and international government	BPO
Infocomm Development Authority of Singapore	EDS	\$1 billion	8 years	National and international government	ITO

years) and more discrete sourcing," says Mike Slavin, partner and managing director, CIO Services North America at TPI. "A significant percentage of our engagements are now below the \$25 million threshold."

With job cuts in January reaching a seven-year high, according to global outplacement consultancy Challenger, Gray & Christmas, more companies are looking to alternative delivery and acquisition models for IT services and application resources. Gartner says in 2008 software-as-a-service and cloud computing were among the top five alternative delivery methods that experienced accelerated adoption and are poised for growth into 2009.

Gartner estimated the worldwide SaaS market at \$6.5 billion at the close of 2008, and the research firm forecasted it could grow to \$15.2 billion by the end of 2012. A survey of 80 providers of such services shows that revenue from the offerings almost totaled \$10 billion,

with expectations of 35% growth in the next three years. And as service providers plan road maps going forward, Gartner reports investments in alternative delivery and acquisition models are on the rise. The latest figures have providers investing close to \$5 billion in cloud-computing capabilities, Gartner reports. And just last week, IBM, Savvis and Juniper all made cloud computing announcements.

"It seems that 2009 may actually be the year to really look at and consider commercial cloud computing offerings," TPI's Slavin says.

Industry watchers warn that enterprise IT executives considering a new services contract should proceed with caution and confirm they have the business processes in place to ensure outsourcing services won't hurt them more than they help. And those continuing with existing contracts could renegotiate terms, says Christine Ferrusi Ross, vice president and research director at Forrester Research. ■

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## BACKSPIN

Mark Gibbs

# IT's glass – full, empty or too big?

In times of economic chaos and budget cuts you need to check your perspective. You know the old saw: A pessimist sees the glass as half empty; the optimist sees it as half full. These are both wrong ways of looking at the problem. The realist's perspective, the right way, recognizes that when there's space above the contents the glass is simply too big.

How you see something (and for that matter how you talk and write about something) determines how you deal with it and both the pessimist and the optimist will tend to see the solution in the same way; they'll see the contents as the problem and want to do more with less. The realist sees the problem as one of redefinition — the glass is the problem. This approach is about doing less with less.

Now doing less with less in IT might sound like an episode of Mission Impossible or MacGyver, but here's the rationale: You've been building up your IT infrastructure for years — that's your glass. Given current circumstances, the contents — your budget — needs to be re-examined to figure out what IT really does and where the money really goes.

I came across a great example of this in a recent conversation with an insurance broker and an IT manager. We were talking about how IT-related claims were handled and both admitted reimbursements never cover the full cost of losses.

For example, while the cost of a stolen laptop might be reimbursed, the actual costs involved with analyzing what was lost, receiving the replacement, setting it up, installing and configuring it, and the lost opportunity cost are rarely factored in. In fact, should you do a complete analysis of this issue for your own organization you might find your insurance is totally inadequate.

This is the stuff that makes IT budgeting so difficult — the hidden costs of how business is done. The trouble is, everything you do has a cost, but in the interest of "getting the job done" we tend to only tally up the higher level descriptions of our work. As in the insurance example, it's the contingent, hidden stuff that sucks your budget up.

So, here's my plan for getting a new perspective on what IT does. First, have every IT staff member explain every task they perform and how long it takes. Then look at those tasks and breakdown the work into all of the subtasks involved. Estimate the time required to do all of the subtasks and see if it adds up to the time estimated for the tasks. I'll bet the majority of the IT tasks take far longer than estimated.

This new perspective on what IT does defines the real size of your glass. The difference between the top of that glass and the level filled by the budget is how oversized your glass is.

Now the challenge: Categorize all your newly analyzed tasks into critical and non-critical, prioritize them within the categories according to whatever criteria make sense (this will probably be some kind of mixture of value and internal politics), and using a running total starting from the highest priority critical items and ending with the lowest priority non-critical items, figure out where your budget runs out.

If the end point is in the critical category you've got a big problem that is probably going to become a board-level issue. If your budget expires in the non-critical category you now have a good idea of the politics involved and a good argument for making changes.

It's all about perspective and having a solid analytical basis for figuring out and being able to argue as to whether your glass is half full, half empty or simply too big.

*Gibbs has been known to argue in Ventura, Calif. Your contentions to backspin@gibbs.com.*



Paul McNamara

## NETBUZZ

News, Insights, oddities

# Girl's 22,795 messages nothing to celebrate

This story about a 12-year-old Indiana girl is quickly becoming a cliché ... and not a flattering one in terms of what it says about our society. This girl, you see, is one of those texting prodigies — a Mozart who's all thumbs; the type our always-on culture has not only come to produce but to celebrate.

From *The (Muncie) Star Press*: "Her father's last Verizon Wireless bill showed that her previous 30-day texting tabulation hit a whopping

22,795 messages. All I could say was, 'Thank God I get free text messaging,' said Dad.

As a reader of my blog noted, the 22,795 figure isn't quite as impressive — if that's the word you choose to use — as it might appear at first blush, since it includes 301 picture texts, 743 sent text messages and 21,751 received.

Nevertheless, Dad's math pegged the stream as "one text message every 113 seconds."

As I noted, you've read this story before. I saw it on public display recently when I took my three 7-year-olds to see their first high-school basketball game. The stands of the small-town gym were packed, the action on the court non-stop, and every other teenager was busy texting someone something every other minute. (My kids were obsessed with the snacks, but that's another story.) I was already aware, of course, that teens and texting are inseparable, but I don't spend much time around them so this was a rare chance to observe the phenomenon up close and personal. ... They missed a great game, even though the home team lost by a point.

Back to Indiana: What particularly struck me about that story was not the magnitude of the girl's texting prowess, but rather the casual acceptance of it by her father and the congratulatory tone taken by

the writer.

From the story: "So what's the secret to her rapid-fire technique? 'I can text one-handed, but I usually use both because it's easier,' she said, adding that she can also text when doing other things. Homework while texting? Sure. Eating while texting? No problem. Brushing her teeth while texting? 'Never tried that,' she admitted."

It took a reader's comment posted at the bottom of the story to offer the perspective that neither the child, her dad nor the reporter could muster: "What a pathetic story! This is what is happening to our society — why don't we all withdraw within the confines of our cell phones and spend all of our time texting ... and quit openly socializing with others?"

Harsh? Lighten up, you say? I say parents should exercise a bit more parental control.

The day after I expressed that opinion on Buzzblog, I received a telephone call from the dad in question. He, as you might expect, was not exactly brimming with gratitude for my unsolicited advice or appreciative of the way I had characterized his daughter's texting habits. He wanted me to know that she is a wonderful girl who does extremely well in school and church, and that the texting — while seemingly excessive on the surface — was actually saving the family money on long-distance phone charges.

I got his point ... but didn't back off mine.

Saturday night I was at a restaurant with my daughter, Emma, when a party of nine — including four teen-age girls — took up the table across from ours. Before the waiter could even hand them menus, all four were furiously texting, whether to each other or others I could not tell.

Glad I wasn't picking up that tab.

*Need to call me a curmudgeon? The address is buzz@nww.com.*



# The Real Stuff.

Financial services firms like ours are very dependent on the use of email and Web connectivity to conduct our business. As the Director of information technology I have to make the security of those channels my top priority.

And as the use of the domain name system to conduct attacks, steal data and interrupt business has increased, so has our need to monitor our communication channels. In this new environment, using standard command line tools to detect and fix critical problems, particularly in a crisis, is no longer an option. It's time consuming and costly. And frankly, that's time I don't have and a cost my firm can't afford. Like any smart IT guy I look for the most efficient solution to solve a problem. That's why I absolutely depend on DNSstuff to stay on top of my domain management responsibilities and fix a DNS problem fast in a crisis. DNSstuff is rock solid and reliable; an every day tool that I can't afford to be without. I can make DNS changes quickly, manage my domains with ease, and run a report in seconds. And DNSstuff's 24 hour alert service helps me detect critical changes before my users do.

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snap a picture of this  
tag. (Requires a free  
mobile app from  
<http://gettag.mobi>)



Microsoft<sup>®</sup>  
**SQL Server<sup>®</sup> 2008**